

## Chase County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors

6/25/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 14 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Chase County economy.<sup>1</sup>

These 14 sectors have a total direct output of approximately **\$87.3 million** and support **366 jobs** in Chase County. Running the model for all 14 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Chase County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
Direct Effect	365.6	20.76%	\$28,141,232	23.93%	\$87,259,977
Indirect Effect	56.4	3.20%	\$5,137,265	4.37%	\$10,094,847
Induced Effect	29.2	1.66%	\$2,118,263	1.80%	\$3,938,769
Total Effect	451.1	25.62%	\$35,396,761	30.10%	\$101,293,593

As shown in the above table, agriculture, food, and food processing sectors support **451 jobs**, or **25.62%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 14 agriculture, food, and food processing sectors is approximately **\$35.4 million**, or **30.10% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **273 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Chase County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	273.2	\$65,178,598
Support activities for agriculture and forestry	25.1	\$1,281,676
Truck transportation	17.8	\$2,823,119
Animal production, except cattle and poultry and eggs	16.5	\$3,425,840
All other crop farming	14.5	\$2,133,708
Bread and bakery product, except frozen, manufacturing	13.3	\$1,005,765
Wholesale trade	12.0	\$2,110,736
Real estate	11.6	\$2,322,336
Farm machinery and equipment manufacturing	10.7	\$3,942,873
Securities and commodity contracts intermediation and brokerage	6.3	\$758,665

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$65.2 million** to the Chase County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	273.2	\$65,178,598
Oilseed farming	2.5	\$4,788,066
Farm machinery and equipment manufacturing	10.7	\$3,942,873
Grain farming	5.5	\$3,900,132
Animal production, except cattle and poultry and eggs	16.5	\$3,425,840
Truck transportation	17.8	\$2,823,119
Real estate	11.6	\$2,322,336
All other crop farming	14.5	\$2,133,708
Wholesale trade	12.0	\$2,110,736
Support activities for agriculture and forestry	25.1	\$1,281,676

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Chase County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	2.8	\$5,095,672.22
Grain farming	6.1	\$4,131,587.10
Vegetable and melon farming	1.4	\$294,589.94
Fruit farming	0.3	\$23,276.67
Tree nut farming	0.2	\$43,700.02
Greenhouse, nursery, and floriculture production	0.1	\$12,272.12
All other crop farming	18.5	\$2,534,629.63
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	271.4	\$62,017,100.35
Dairy cattle and milk production	1.9	\$847,295.86
Poultry and egg production	0.3	\$304,603.47
Animal production, except cattle and poultry and eggs	14.5	\$2,955,398.46
Bread and bakery product, except frozen, manufacturing	4.0	\$360,274.49
Farm machinery and equipment manufacturing	23.2	\$10,628,264.20
Veterinary services	12.4	\$753,752.69

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Chase County, the retail sector was omitted.